

AIR RESOURCES BOARD

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It is the mission of the Air Resources Board (ARB) to promote and protect public health, welfare, and ecological resources through the effective and efficient reduction of air pollutants while recognizing and considering the effects on the economy of the state.

Developing and Implementing New Strategies to Effectively Reduce Air Pollution

ARB is responsible for reducing emissions from motor vehicles, off-road equipment, fuels, consumer products, and air toxics. ARB also recommends pollution control measures for the industrial and commercial sources under the jurisdiction of California's 35 local air districts.

Accomplishments

1. **Transportation Conformity Agreement:** ARB coordinated with the Federal Highways Administration, the U.S. Environmental Protection Agency (U.S. EPA), and other local, State, and federal agencies to resolve issues related to new federal guidance on the use of vehicle fleet information when assessing conformity of transportation and air quality plans. In April, ARB reached agreement with the federal agencies on an expedited schedule to incorporate the new vehicle information in 23 state implementation plans (SIP) statewide.
2. **Update the SIP for South Coast:** ARB has worked with the South Coast Air Quality Management District, the Southern California Association of Governments, and other stakeholders on a comprehensive revision to the South Coast SIP. The SIP revision will include new emission data, modeling based on the results of the Southern California Ozone Study, and an update assessment of local, State, and federal strategies to reduce emissions. ARB is expected to consider approval of the plan in early 2003.
3. **Update the SIP for San Joaquin Valley:** San Joaquin Valley failed to attain the federal ozone standard by its 1999 deadline and consequently received a classification of "severe" with a 2005 attainment deadline. ARB worked with district staff to assess the San Joaquin Valley's ability to demonstrate attainment by 2005. Based on the joint analysis, staff of the San Joaquin Valley Unified Air Pollution Control District could not identify enough emission reduction measures to attain the ozone standard by 2005. To avoid the consequences of missing the 2005 deadline, the district governing board at its June meeting committed to formally submitting a request for reclassification to "extreme" by Fall 2003. This would set a 2010 attainment deadline. The governing board also committed to developing an extreme ozone SIP by December 2003 and, in the interim, move ahead with an expedited rule adoption schedule. ARB staff supported the decision to reclassify to extreme and is assisting in development of the extreme SIP.
4. **Residential Waste Burning:** In February, ARB adopted an airborne toxic control measure (ATCM) to reduce emissions of toxic air contaminants from outdoor residential waste burning. The ATCM will eliminate the outdoor burning of non-vegetative residential waste

materials and prohibit the use of burn barrels. This measure will reduce dioxin emissions as well as many other airborne toxics.

5. **Diesel Emission Control Retrofit Verification Procedures:** In May, ARB approved new verification procedures to evaluate diesel emission control devices such as particulate matter filters and oxidation catalysts. The ARB diesel risk reduction plan includes strategies to reduce toxic particulate matter emissions from diesel vehicles and equipment. The verification procedures provide a mechanism to ensure that emission reductions achieved are both real and durable.
6. **Measure M-17 Truck Test Program-NOx (Oxides of Nitrogen) Screening Test:** ARB is developing an NOx screening test for heavy-duty diesel trucks to implement measure M-17 from the 1994 SIP. The ARB team began a pilot study to test heavy-duty trucks on a chassis dynamometer. In another project, portable analyzers were used on trucks in an on-road field-testing demonstration.

Priorities

1. **Phase 3 California Reformulated Gasoline:** ARB will consider amendments to the Phase 3 California reformulated gasoline requirements. The amendments would extend the deadline for removing methyl tertiary butyl ether (MTBE) from gasoline by one year in accordance with the Governor's executive order.
2. **Rice Straw Expo:** ARB has been working toward finding uses for 50 percent of post-harvest rice straw so that it does not have to be burned. In July, ARB will host a rice straw expo, creating an opportunity for communication between rice growers, producers of rice straw products, and consumers of these products. This expo will serve as a forum for educating all parties on potential markets for rice straw and the cost-effectiveness of using rice straw for a variety of products.
3. **M-17 In-Use Testing Program for Heavy-Duty Diesel Trucks:** In December, ARB will consider adopting regulations that would extend its diesel truck smoke inspection program to include testing for NOx and particulate matter to help ensure that truck engines stay within certified emission limits throughout their useful life. This program would involve both roadside screening and in-use compliance testing of heavy-duty diesel trucks.
4. **Urban Vegetation Information Program:** ARB is initiating a voluntary urban vegetation air quality information program to provide information to the public and distributors that will encourage choosing vegetation that is most beneficial to air quality. The program will apply to urban areas and will provide information on hydrocarbon emissions and bioallergens associated with the vegetation. ARB staff is conducting workshops with interested stakeholders and plans to bring the program concept to the board by the end of 2002.

Incorporating Environmental Justice Principles and Children's Health Issues into ARB Actions

Over the last two decades, ARB policies and programs have helped to reduce the health risk from air pollution across California. However, ARB recognizes the need to address neighborhood-scale air quality issues. ARB will work to integrate environmental justice and children's health issues into all of its programs, policies, and actions, and to improve its outreach efforts.

Accomplishments

1. **Improve Cumulative Health Risk Mapping:** ARB has made progress in creating community-friendly maps showing the cumulative risk from air pollutants. ARB developed and demonstrated a prototype of neighborhood-level risk maps to the California Air Pollution Control Officers Association in May.
2. **Particulate Matter Standards to Protect Children's Health:** In June, ARB adopted a joint ARB and Office of Environmental Health Hazard Assessment (OEHHA) proposal to revise California's air quality standards for particulate matter and sulfates to adequately protect children's health. ARB established a new annual average standard for particulate matter 2.5 microns and less in diameter (PM_{2.5}). ARB also lowered the annual average standard for particulate 10 microns and less in diameter (PM₁₀) but kept the 24-hour standard for PM₁₀ and the sulfates standards at their current levels. The board directed staff to analyze further the need to set a 24-hour standard for PM_{2.5}, based on corrected statistical analyses of the original health studies.
3. **Environmental Justice Policies:** ARB staff continues to make progress towards implementing the environmental justice policies and actions adopted by the board in December 2001. ARB developed an environmental justice section, began training for ARB staff, began incorporating environmental justice analyses into ARB reports, and held stakeholders meetings to discuss complaint resolution issues.
4. **Chromium VI (Hexavalent Chromium) Study in Barrio Logan:** As part of the children's environmental health protection program, ARB conducted special monitoring in the Barrio Logan section of San Diego. During the study, ARB found unexpectedly high levels of chromium VI in neighborhoods adjacent to two chrome-plating facilities. In response, ARB initiated an intensive air monitoring study in the affected neighborhoods. ARB conducted ambient air monitoring, testing of control equipment, and indoor air monitoring at the chrome-plating facilities. Local agencies used ARB monitoring data in follow-up enforcement actions.

Priorities

1. **School Bus Idling ATCM:** ARB is developing an ATCM to limit school bus idling to only those times necessary for safety or operational concerns. The proposed ATCM is intended to reduce children's exposure to toxic air contaminants and other pollutants in school bus exhaust. ARB staff will continue to work with stakeholders to discuss issues such as

identifying an acceptable time period for idling. Staff will also work to determine activities and situations that should be exempt from an idling limit.

2. **Report to the Legislature on Air Quality in Portable Classrooms:** As required under section 39619.6 of the Health and Safety Code, ARB and the Department of Health Services (DHS) are conducting a joint study of the environmental health conditions in portable classrooms and will issue a report to the Legislature during the second half of 2002. As part of the study, ARB and DHS have developed recommendations to assist schools in reducing their indoor concentrations of formaldehyde, one of the pollutants of concern.
3. **Report on the Adequacy of the Monitoring Network:** At its December board meeting, ARB will consider a report, as required by the Children's Environmental Health Protection Act, (SB 25, Escutia, Chapter 731, Statutes of 1999) on the adequacy of California's air quality monitoring network in reflecting the levels of air pollutants that infants and children are breathing. To support the evaluation, ARB is conducting special expanded monitoring in six communities across California.

Promoting the Development, Commercialization, and Use of Zero- and Near-Zero Emission Technologies

Development of low-emission technologies has been essential to improving California's air quality while accommodating growth. However, the state has not achieved all health-based air quality standards. In order to achieve and maintain these standards and reduce health risk from air toxics, California needs to pursue development, commercialization, and use of zero- and near-zero emission technologies.

Accomplishments

1. **Guidelines for Fund Distribution for Zero-Emission Vehicle (ZEV) Incentive Program:** In April, ARB approved revisions to program guidelines for the Statewide Zero Emission Vehicle Incentive Program. The guidelines for the distribution of funds include fleet incentive programs in non-attainment areas with preference to fleets operated in low-income and minority areas.
2. **Stationary Fuel Cell Collaborative:** The Stationary Fuel Cell Collaborative was formed in 2001 to encourage the commercialization of fuel cells. The collaborative has a short-term goal of purchasing fuel cell generation units for California government agency buildings. Toward this end, in early 2002, ARB staff reviewed six pre-proposals for procurement and installation of a fuel cell at the Cal/EPA Headquarters Building in Sacramento.

Achieving Necessary Emission Reductions Through Compliance Assistance and Aggressive, Firm, Fair Enforcement

ARB takes great pride in implementing regulations and other programs to improve air quality by limiting or eliminating emissions from statewide sources of air pollution. ARB has established many innovative regulatory programs, but these programs will not deliver the necessary emission reductions unless they are fully implemented.

Accomplishments

1. **On-Board Diagnostic (OBD II) System Requirements:** In April, ARB approved a comprehensive set of new regulations that in 2004 would replace the current OBD II regulations. The regulations were updated to account for newer emission control technologies and lower tailpipe standards, increase the amount of standardized data available to repair technicians and smog check technicians, adopt more specific enforcement provisions, and improve the effectiveness of the regulations for future model year vehicles.

Priorities

1. **Administrative Penalty Program:** ARB will propose amendments to the administrative penalties sections of Title 17, California Code of Regulations. This will give ARB the authority to impose administrative penalties—as an alternative to seeking civil penalties for less serious violations—of mobile and stationary regulations. ARB staff anticipates bringing the program amendments to the board at the end of 2002.

Improve Scientific Understanding of the Relationship Between Air Pollution and Health Effects

The ARB health research program is continuing to advance its understanding of the link between air pollution and public health. ARB is placing an increased emphasis on community health and environmental justice. This is stimulating research within ARB on the health effects of individual and multiple air toxics as well as the impacts of air pollution on vulnerable populations. The indoor air quality and personal exposure program is helping ARB to better understand the sources and health effects of airborne pollutants in schools, homes, and workplaces.

Accomplishments

1. **Field Research for the Children's Health Study to Investigate the Effects of Long-Term Air Pollution Exposure on Child Lung Development:** ARB has completed gathering data for a 10-year field research project to determine the health effects of air pollution on children. The Children's Health Study evaluated 5,200 children over a 10-year period to determine the effects of long-term exposure to air pollution on lung function and asthma development. The study suggests that ozone is a cause of the onset of asthma in children and found that very

active children in high-ozone concentration areas have a two-to-three-times greater chance of contracting asthma than children in other areas.

2. **Fresno Asthmatic Children's Health Study:** ARB continues to make progress on conducting a five-year study to determine the effects of air pollution in Fresno on children with asthma. Approximately 450 asthmatic children between the ages of 6 and 10 years old have been enrolled in the study, which will monitor children's response to air pollution. The study consists of lung function tests, questionnaires, and skin testing for allergies. In early 2002, ARB put into place newly designed mobile monitoring trailers to measure air pollutants at the children's schools. These highly instrumented monitoring trailers will provide vital information to help model the pollution profile of the community in which these children live.

Improving Technical Tools to Assess Air Pollution and Evaluating Air Quality Improvement Strategies

Key to the air quality progress California has made is the robust data and analytical tools underpinning our plans, initiatives, and regulatory strategies. ARB will continue to use the best science to answer the basic questions: to which pollutants are people exposed, and to what degree? What are the pollution sources, and how much do they emit? How does pollution move, react, and accumulate in the atmosphere?

Accomplishments

1. **Refine the Understanding of Particulate Matter Pollution:** ARB completed a preliminary analysis of some of the data collected in the California Regional Particulate Matter Air Quality Study. ARB is expediting use of the best available data for the required revision to the San Joaquin Valley SIP for PM10.
2. **Increased Ability to Assess and Improve Air Quality in the California-Mexico Border Region:** ARB is in the process of deploying five continuous PM10 monitors in Imperial County and Mexicali. These tests will help ARB understand the interrelation between locally generated particulate pollutant emissions and pollutants transported across the border, as well as how these pollutants contribute to exceedances of the air quality standards.
3. **California-Mexico Border Power Plants:** ARB prepared a joint declaration for consideration by the governors of the 10 U.S. states and Mexico border states to address the potential environmental impacts associated with the growing number of power plants being built in the U.S.-Mexico border region. The joint declaration calls for the use of the best available air pollution emission controls and the utilization of cooling technologies that minimize water use by power plants sited in desert regions. The declaration, sponsored by Cal/EPA, was signed by the governors at the annual Border States Governors Conference in June.

Priorities

Increased Ability to Monitor Air Quality in the California-Mexico Border Region: ARB will enter into a formal agreement with Mexico's environmental ministry, Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT) to ensure the continued operation of an air quality monitoring network in the cities of Tijuana, Mexicali, and Tecate. This agreement will outline the monitoring goals and the responsibilities of the two agencies and will facilitate the transfer of air quality monitoring technology to Mexico. The continued availability of air quality data will allow U.S. and Mexican authorities to better understand the causes and severity of air pollution in the border region, assess the extent of cross-border transport, develop effective pollution reduction programs, and measure progress towards attainment of air quality standards.

STATE OF CALIFORNIA

Gray Davis, Governor

www.governor.ca.gov

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

Winston H. Hickox, Secretary

1001 "I" Street • P.O. Box 2815
Sacramento, California 95812
916.445.3846

www.calepa.ca.gov

Office of Environmental Health
Hazard Assessment
916.445.6903
www.oehha.ca.gov

Air Resources Board
916.322-2990
www.arb.ca.gov

Integrated Waste
Management Board
916.341.6300
www.ciwmb.ca.gov

Department of Pesticide
Regulation
916.445.4300
www.cdpr.ca.gov

State Water Resources
Control Board
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www.swrcb.ca.gov

Department of Toxic
Substances Control
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www.dtsc.ca.gov



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